Date: 6/21/2013
GAIN Report Number: IT1313

Italy

Post: Rome

Update – Overview of Malta's Biofuel Sector and RED Implementation

Report Categories:
Biofuels
Approved By:
Christine Sloop
Prepared By:
Dana Biasetti

Report Highlights:
Report is an update of Malta GAIN IT1301 – Overview of Malta's Biofuels sector and RED implementation.

General Information:

The transposition of the Renewable Directive, 28/2009/EC, into Regulations of the Republic of Malta was done by establishing new Regulations and by amendments to a series of others. The new Regulations are:

(i) Promotion of Energy from Renewable Energy Sources Regulations (Legal Notice 538 of 2010 as amended by Legal Notice 2010 of 2012);
(ii) The Biofuels (Sustainability Criteria) Regulations (Legal Notice 553 of 2010 as amended by Legal Notice 50 of 2012); and
(iii) The Biofuels and Bioliquids Market Regulations (Legal Notice 85 of 2012 as amended by Legal Notice 184 of 2012).

The following regulations were amended to include provisions relating to the Renewable Energy Market:
(i) Legal Notice 68 of 2011 amending Legal Notice 278 of 2007 –
Petroleum for the Inland (Wholesale) Fuel Market (Amendment) Regulations;
(ii) Legal Notice 126 of 2011 amending Legal Notice 92 of 2010 -
Guarantees of Origin of Electricity from High Efficiency Cogeneration and Renewable Energy Sources (Amendment) Regulations; and
(iii) Electricity Market Regulations, L. N. 166 of 2011

Malta has had biofuels legislation in place since December 2004. The law on the 'Use of Biofuels or Other Renewable Fuels for Transport Regulations' was issued in 2004 and set a national indicative target for biofuels amounting to 0.3% by December 31, 2005. With consumption at 770,000 liters of biodiesel (i.e. 200,000 liters more than the required 570,000 liters), this limited target was exceeded by August 2005. By September 2007, Malta established a project for a 5% mandate. As previously mentioned, Malta is completely dependent on imported fuel, and since 2004, the Maltese Edible Oil Refining Company EORC Ltd. has been converting cooking oils into biodiesel. The project involves the collection of used cooking oils from catering establishments and about 24,000 households that would have otherwise been drained into the sewage system. The project name is "Fat Chance" and the company KOSEPS is currently operating a 3,000 t/y plant, and is considering opening another unit with a 10,000 tons/year capacity. Given the small quantities of biomass from agricultural sources available on the island, the only raw material that can be used for biofuels production is municipal or industrial waste. Malta is, however, looking at the possibility of producing biodiesel from algae in order to ensure the country's self-sufficiency in terms of available raw materials.

Malta will strive to achieve its 2020 renewable energy targets through the deployment of, solar thermal, solar photovoltaic's, an offshore wind farm and a number of waste to energy projects. The major share of renewable energy will be generated from a relatively high number of smaller capacity renewable energy sources distributed across all the Maltese Islands that are already integrated into exist infrastructure due to Malta's limited space and conflicting use for other activities. The concerns

about how to surmount the barriers to developing these projects are being addressed on a case-by-case basis, but are already being explored. The Government has already identified potential wind farm development sites that would have the least impact on other activities and the environment and has already started the Environmental Impact Assessments or Appropriate Assessments as needed. Studies have also been approved on other innovative technologies such as wave and other experimental sea energy technologies. It is expected that the uptake of domestic and 'small sized' renewable energy technologies will take place thru a large number of smaller installation capacities, with priority being given to those technologies which are already widely available such as solar photovoltaic systems, solar water heating and micro-wind.

In 2007, the Malta Environment and Planning Authority issued a set of guidelines on solar applications for buildings. Guidelines are also available for micro wind turbines with capacities up to 20kW. Installations for the generation of electricity from renewable energy such as solar photovoltaic systems are being certified by bonded electrical engineers. Since 2011, courses have been offered to certify installers of solar applications to ensure they've been done properly, safely, and according to the most effective methods for such installations.

In the transport sector, a biofuels substitution requirement has become mandatory for importers/wholesalers of fuel for the transportation sector. The required percentage that must be substituted started at 1.5% (by energy content) in 2011 and is supposed to reach 10% by 2020. Currently the diesel blending rate with sustainable biodiesel from waste is at 3.5%.

Malta is 99.5% dependant on fossil fuels. Unlike larger EU member states, Malta cannot sustain vegetable farming on a large scale to meet its biofuel needs. The European Union commissioned The Climate Policy Tracker to issue a report on each Member State's greenhouse gas emissions, and Malta was graded an F (A being the best score and G the worst). The quantification of CO_2 emissions per capita for Malta was used to benchmark compliance with the Kyoto targets. Malta was given an 'F' due to its per capita carbon footprint of 7.37 tons per year.

The Brussels European Council compiled a package, which states that by 2020 Malta has to generate 10 percent of its electricity demand from renewable energy sources such as photovoltaic panels, wind turbines, and wave technology. Additionally, Malta must convert ten percent of its fossil fuel use for transportation to bio-fuels. Currently, the main sources of bio-fuels in Malta are derived from sewage water, landfills and used cooking oils. Used oil and grease is collected from the hotel and restaurant sector. The national sewer discharge regulation (LN 378/05) stipulates that all catering establishments must install a grease trap in order to prevent the grease and fats from blocking the sewers, but most of the collected grease ends up in landfills. What is not collected ends up in the sea.

In view of its geographic location, Malta's dependence on imported fossil fuels, and its international obligation to reduce greenhouse gas emissions, Malta is an ideal candidate for research and investment in the production of alternative fuels, CO2 and NOX sequestration, and micro-algae conversion. The Maltese Ministry for Resources and Rural Affairs (MRRA) has therefore, mandated the Malta Intelligent Energy Management Agency (MIEMA) develop a project to explore the feasibility of

setting up a centre for the production of bio-fuels from marine algae. Altern, a local company, is working with a Dutch firm that has already worked on 40 different test-plants worldwide.

Overview of key activities for implementation of the RES Directive 2009/28/EC related to the scope of the CA-RES working groups Name of the activity	Short description (scope of the activity, target groups, or areas, achieved, or expected results). 100-200 words	Relevant CA-RES WG name & number
Grant on initial capital investment	In order to facilitate the uptake of renewable energy resources financial incentives in terms of grants on the initial capital investment were made available for residential and non-residential sectors through grant schemes launched by the Maltese Government in 2006, and annually since 2009. The aim is to make these technologies more affordable to the public. One scheme is that for promoting energy efficiency and the use of renewable sources of energy in the domestic sector. The scheme administered by the Malta Resources Authority forwards grants on Solar Water Heaters and Photovoltaic systems financed by the ERDF and National Funds. Under this scheme around 12, 500 applications were processed Another scheme is that administered by the Malta Enterprise which forwards grants to the industrial and commercial sector for energy efficient and renewable projects. Because of these schemes, approximately 47 GWhrs of electricity and heat were generated saving approximately 35.5 GgCO2eq.	WG6 : Electricity Networks
Feed in Tariff for Solar Photovoltaic Systems	The generation of electricity from renewable technologies and combined heat and power technologies may initially derive energy at a relatively higher cost than conventional fuels and thus may need financial assistance. The Maltese Government has been providing capital grants for solar technologies such as solar water heating and solar photovoltaic systems. Since 2010, for solar photovoltaic systems, the government has offered grants on the purchase price and a special feed-in incentive to ensure innovative and environmentally friendly technologies are used. The Feed-in Tariff Regulation S.L. 423.46 focuses on solar photovoltaic	WG6 : Electricity Networks

	systems, however this is the first stepping stone to similar tariffs aimed at other grid connected renewable energy technologies, such as micro-wind and co-generation especially if the latter is driven by a share of renewable energy sources. S.L. 423.46 came into force in September 2010, and provides that photovoltaic installations, including those benefiting from a grant, can benefit from a favorable feed-in rate on the surplus electricity from such systems. The introduction of a feed-in tariff replaced the previous net-metering arrangement however owners of the photovoltaic installations were given the option to consume on site the electricity produced and export the surplus electricity at the feed-in tariff. The introduction of the feed-in tariff increased the potential to exploit the rooftops of even premises with low electricity consumption that formerly had no incentive for net metering. It is estimated that around 16MW of solar photovoltaic installations are benefitting from the feed-in tariffs introduced by S.L. 423.46. In February 2013 a new set of feed-in tariffs were introduced for electricity produced and exported to the grid from solar photovoltaic installations, which do not benefit from any grants on the capital investment. The feed-in tariff regulation is further explained at the Malta Resources Authority link: http://mra.org.mt/news/pv-aid-scheme/ A number of waste-to-energy projects consisting of electricity produced from either biogas (from manure or municipal waste) or landfill gas were approved for the feed-in tariff on a case-by-case basis. The feed-in tariffs approved differentiate between plants that benefit from capital grants and those that do not benefit from any grant.	

New Maltese Government – Next Steps

The new Maltese government plans to launch a revised policy framework on renewable energy by the end of this summer in its attempt to reach the 10% target set by the EU by 2020. The newly appointed Minister of Energy, Konrad Mizzi, has announced a funding program for innovative renewable energy technology and carbon capture and storage projects. Besides launching its revised renewable energy policy this summer, the Maltese government plans to introduce budgetary measures to incentivize the purchase of solar energy. The government plans to revise its national renewable energy action plan by

July 2013 when the EU member states must submit their biannual reports. In the past, Malta's prior plans have given considerable importance to offshore and onshore wind generation to meet the 10% target by 2020 (offshore wind 3.48%, onshore wind 0.6%, waste to electricity 2.18%, waste to heat 0.32%, solar water heaters 0.52%, photovoltaic is 0.69%, biofuels 2.14%).